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Term: L4 and liquid crystal$

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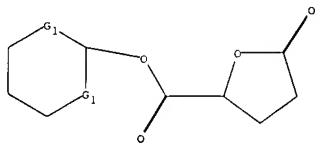
Search History

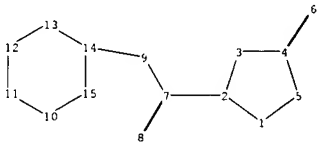
DATE: Wednesday, August 06, 2003 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ			
L5	L4 and liquid crystal$	23	L5
L4	mdw	174	L4
L3	L1 and liquid crystal$	1119	L3
L2	mdw with (1198 or 1212)	0	L2
DB=USPT,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ			
L1	1198 or 1212	22698	L1

END OF SEARCH HISTORY

C:\STNEXP4\QUERIES\068557.str





chain nodes :
6 7 8 9
ring nodes :
1 2 3 4 5 10 11 12 13 14 15
chain bonds :
2-7 4-6 7-8 7-9 9-14
ring bonds :
1-2 1-5 2-3 3-4 4-5 10-11 10-15 11-12 12-13 13-14 14-15
exact/norm bonds :
1-2 1-5 2-3 2-7 3-4 4-5 4-6 7-8 7-9 9-14 10-11 10-15 11-12 12-13 13-14
14-15

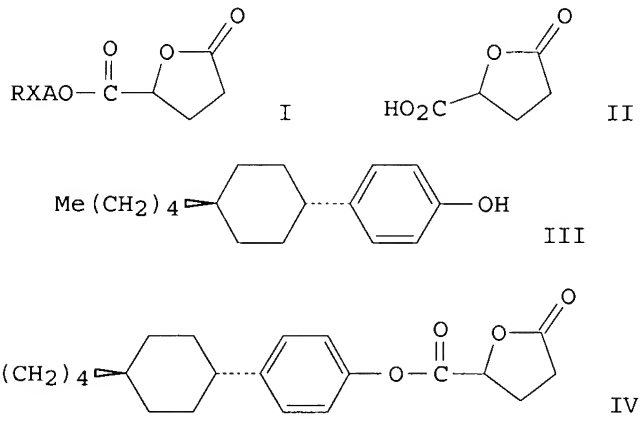
G1:C,N

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom

AN 1993:101791 CAPLUS
DN 118:101791
TI Preparation of optically active .gamma.-butyrolactone derivatives
IN Kamimura, Shigeo; Sakashita, Keiichi; Kageyama, Yoshitaka; Sako, Yoshihiro; Terada, Fumiko
PA Mitsubishi Rayon Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C07D307-33
ICS C07D405-12; C09K019-34; C09K019-42
CC 27-6 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 75
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04193873	A2	19920713	JP 1990-324758	19901127

PRAI JP 1990-324758 19901127
OS MARPAT 118:101791
GI



I II III IV

AB The title compds. [I; R = C2-18 linear or branched alkyl, C2-18 linear or branched alkenyl, etc.; X = bond, O, CO2, O2C; A = (substituted) phenylene, biphenylylene, pyrimidinediyl, 1,4-cyclohexylene, etc.], useful as ferroelec. **liq. crystal** compns., are prepd. Reflaxing 0.65 g (S)-II in SOCl2 gave the acid chloride, which was dissolved in C6H6 and stirred with a soln. of trans-III in pyridine at room temp. to give 0.8 g pure (S)-IV showing a cryst.-isotropic phase-transition temp. of 130.degree.. A ferroelec. **liq. crystal** compn. contg. 2 mol% (S)-IV was incorporated into a display element to show a fast optical response time.

ST **liq crystal** compn chiral butyrolacetonecarboxylate
IT **Liquid crystals**
(optically active .gamma.-butyrolactone carboxylate derivs.)
IT 21461-84-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification of, with (pentylcyclohexyl)phenol, in prepn. of **liq. crystal** compn.)
IT 82575-69-7, 4-(trans-4-Pentylcyclohexyl)phenol
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification of, with butyryllactonecarboxylic acid, in prepn. of **liq. crystal** compn.)
IT **145920-89-4**
RL: RCT (Reactant); RACT (Reactant or reagent)

(**liq. crystal** compn., for display)

IT **145701-39-9P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as **liq. crystal** compn.)

IT **145920-89-4**

RL: RCT (Reactant); RACT (Reactant or reagent)
(**liq. crystal** compn., for display)

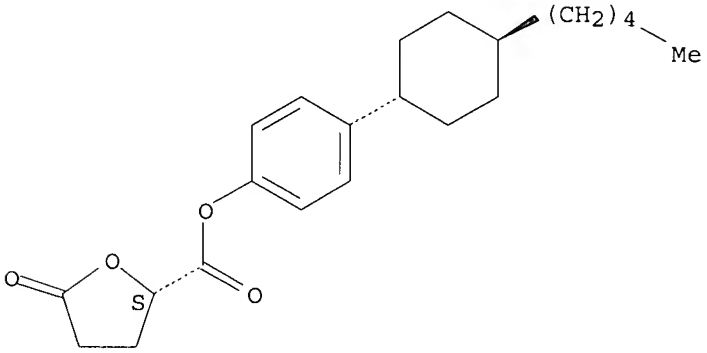
RN 145920-89-4 CAPLUS

CN 2-Furancarboxylic acid, tetrahydro-5-oxo-, 4-(4-pentylcyclohexyl)phenyl ester, [1(S)-trans]-, mixt. with 2-[4-(decyloxy)phenyl]-5-octylpyrimidine, 5-heptyl-2-[4-(heptyloxy)phenyl]pyrimidine, 5-heptyl-2-[4-(nonyloxy)phenyl]pyrimidine, 5-heptyl-2-[4-(octyloxy)phenyl]pyrimidine, 2-[4-(hexyloxy)phenyl]-5-nonylpyrimidine and 5-octyl-2-[4-(octyloxy)phenyl]pyrimidine (9CI) (CA INDEX NAME)

CM 1

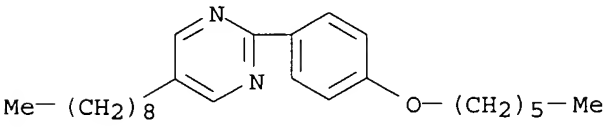
CRN 145701-39-9
CMF C22 H30 O4

Absolute stereochemistry.



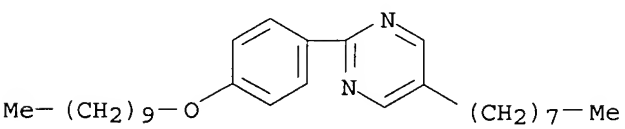
CM 2

CRN 57202-56-9
CMF C25 H38 N2 O



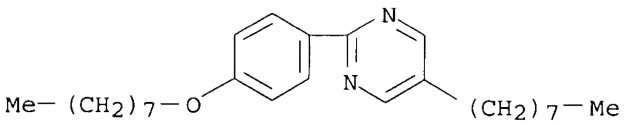
CM 3

CRN 57202-52-5
CMF C28 H44 N2 O



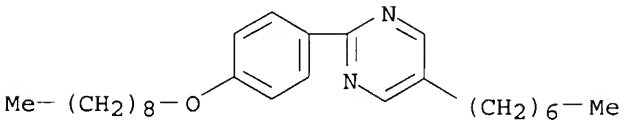
CM 4

CRN 57202-50-3
CMF C26 H40 N2 O



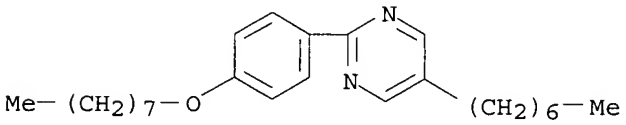
CM 5

CRN 57202-40-1
CMF C26 H40 N2 O



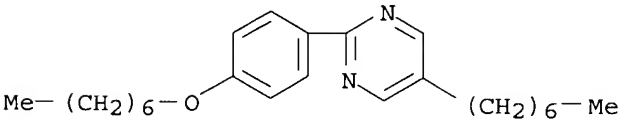
CM 6

CRN 57202-39-8
CMF C25 H38 N2 O



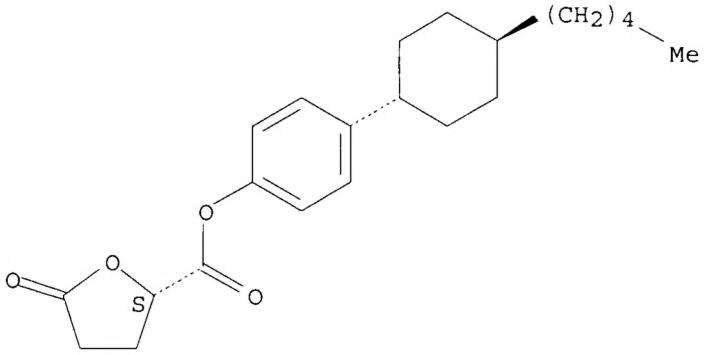
CM 7

CRN 57202-38-7
CMF C24 H36 N2 O



IT **145701-39-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as **liq. crystal** compn.)
RN 145701-39-9 CAPLUS
CN 2-Furancarboxylic acid, tetrahydro-5-oxo-, 4-(4-pentylcyclohexyl)phenyl ester, [1(S)-trans]- (9CI) (CA INDEX NAME)

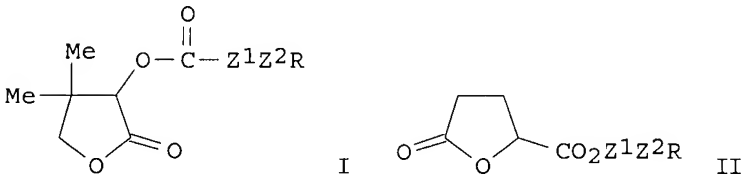
Absolute stereochemistry.


(CH2)4
Me
O
O
O
O
S

AN 1993:147448 CAPLUS
DN 118:147448
TI Preparation of .gamma.-butyrolactone derivatives as liquid and crystal compositions
IN Tsuchiya, Kazuhiko; Sugiura, Atsushi; Suzuki, Kenji; Fujii, Tsunenori
PA Kanto Chemical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C07D307-33
ICS C07D405-12; C07D405-14; C07D407-12; C07D407-14; C09K019-34; C09K019-42
CC 27-6 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 75
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 04208277	A2	19920729	JP 1990-330451	19901130
PRAI JP 1990-330451		19901130		

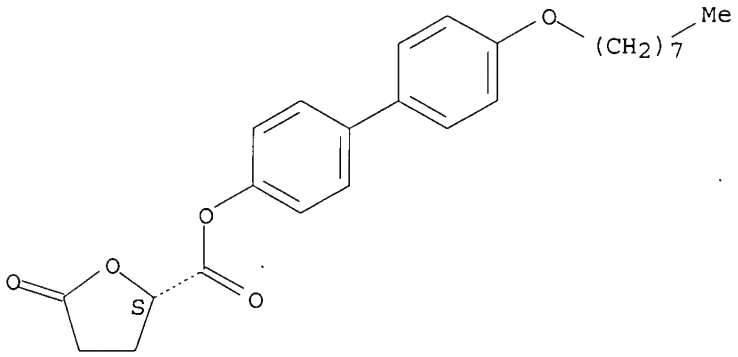
OS MARPAT 118:147448
GI



AB .gamma.-Butyrolactone derivs. [I, II; R = C1-16 linear or branched alkyl or alkoxy; Z1, Z2 = (F-substituted) p-phenylene, 1,4-cyclohexylene, 1,4-pyrimidinediyl, 2,5-pyridinediyl, etc.] are prepd. A mixt. of 4-(dimethylamino)pyridine, 4-(octyloxy)biphenyl-4'-carboxylic acid, and (R)-(-)-3,3-dimethyl-2-hydroxy-.gamma.-butyrolactone was added to a soln. of DCC in CH2Cl2 with stirring at room temp. to give 52.4% (R)-I (R = octyloxy, Z1 = Z2 = p-phenylene) of 99.0% purity. Two **liq. crystal** display devices contg. I showed good response time, spontaneous polarization, and tilt angle.
ST butyrolactone prepn **liq crystal** compn
IT **Liquid crystals**
(.gamma.-butyrolactone derivs.)
IT 21461-84-7 58415-63-7, 4-(5-Octylpyrimidin-2-yl)phenol 59748-18-4, 4-Octyloxybiphenyl-4'-carboxylic acid 83626-36-2 88196-69-4 110500-54-4 118350-46-2 131951-45-6 146575-69-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification of, in prepn. of **liq. crystal** compn.)
IT 129615-58-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(**liq. crystal** compn. contg.)
IT 146575-70-4P 146575-71-5P 146575-72-6P 146575-73-7P 146575-74-8P **146575-75-9P 146575-76-0P 146575-77-1P 146575-78-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as **liq. crystal** compn.)
IT **146575-75-9P 146575-76-0P 146575-77-1P 146575-78-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as **liq. crystal** compn.)
RN 146575-75-9 CAPLUS

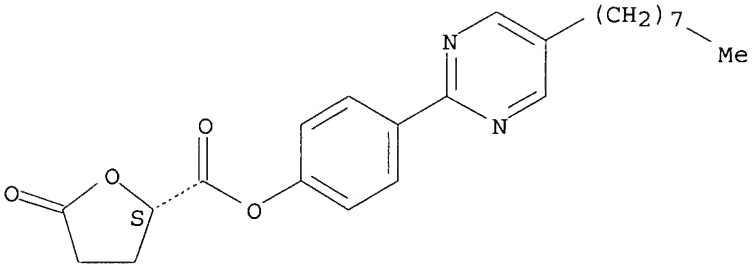
CN 2-Furancarboxylic acid, tetrahydro-5-oxo-, 4'-(octyloxy)[1,1'-biphenyl]-4-yl ester, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



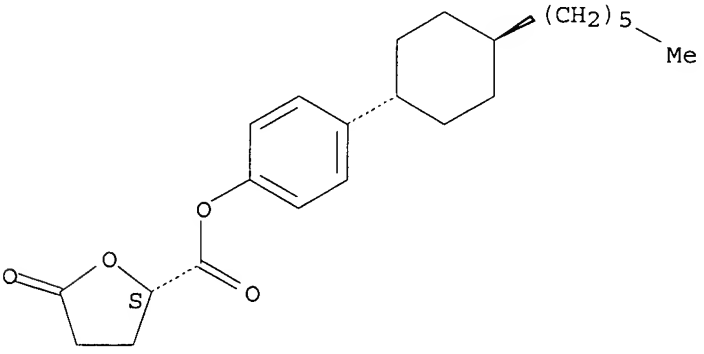
RN 146575-76-0 CAPLUS
CN 2-Furancarboxylic acid, tetrahydro-5-oxo-, 4-(5-octyl-2-pyrimidinyl)phenyl ester, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



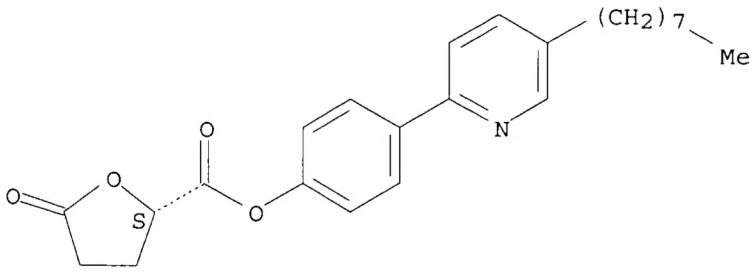
RN 146575-77-1 CAPLUS
CN 2-Furancarboxylic acid, tetrahydro-5-oxo-, 4-(4-hexylcyclohexyl)phenyl ester, [1(S)-trans]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 146575-78-2 CAPLUS
CN 2-Furancarboxylic acid, tetrahydro-5-oxo-, 4-(5-octyl-2-pyridinyl)phenyl ester, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.


(CH2)7
Me
N
O
O
O
O
S

AN 1995:740928 CAPLUS
DN 123:127788
TI Mesomorphic compound, **liquid crystal** composition containing the compound, **liquid crystal** device using the composition, **liquid crystal** apparatus and display method.
IN Shinichi, Nakamura; Takao, Takiguchi; Takashi, Iwaki; Takeshi, Togano; Yoko, Kosaka
PA Canon K. K., Japan
SO Eur. Pat. Appl., 84 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM C09K019-34
ICS C09K019-12; C09K019-14; C09K019-32; C09K019-20; C09K019-04; C09K019-46; C07D239-26; C07D213-30; C07D319-06; C07C069-76
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 75
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 640676	A1	19950301	EP 1994-113508	19940830
	EP 640676	B1	19990120		
	R: CH, DE, ES, FR, GB, IT, LI, NL, SE				
	JP 07097354	A2	19950411	JP 1993-237215	19930831
	JP 3230024	B2	20011119		
	JP 07133244	A2	19950523	JP 1993-243580	19930906
	JP 3216752	B2	20011009		
	US 5653913	A	19970805	US 1996-628446	19960405
PRAI	JP 1993-237215	A	19930831		
	JP 1993-243580	A	19930906		
	US 1994-297840	B1	19940830		

OS MARPAT 123:127788
AB A mesomorphic compd. CmH2m+1O(CH2)n(CH2)p(CH2)q-Y1-A1-R1 [R1 = H, halogen, CN, or a linear, branched or cyclized alkyl group having 1-30 C atoms capable of including at least one -CH2- group which can be replaced with -O-, -S-, -CO-, -CH(Cl)-, -CH(CN)-, -CCH3(CN)-, -CH:CH- or -C.tplbond.C- provided that heteroatoms are not adjacent to each other and capable of including at least one H which can be replaced with F; m, n, p and q = 1-16 provided that m + n + p + q .ltoreq. 18; Y1 denotes a single bond, -O-, -CO-, -COO-, -OCO-, -CH:CH or -C.tplbond.C-; A1 = -A2-, -A2-X1-A3- or -A2-X1-A3-X2-A4 in which A2, A3 and A4 independently denote a divalent cyclic group; X1, X2 = a single bond, -COO-, -OCO-, -CH20-, -OCH2-, -CH2CH2-, -CH:CH- or -C.tplbond.C-] having .gtoreq.2 ether groups between alkylene groups in a specific alkoxy perfluoroalkyl terminal group is suitable as a component for a **liq. crystal** compn. providing improved response characteristics and a high contrast. A **liq. crystal** device is constituted by disposing the **liq. crystal** compn. between a pair of substrates. The **liq. crystal** device is used as a display panel constituting a **liq. crystal** app. providing good display characteristics.
ST mesomorphic **liq crystal** device display; perfluoroalkyl mesomorphic compd
IT **Liquid crystals**
(perfluoroalkyl mesomorphic compd.)
IT Optical imaging devices
(electrooptical **liq.-crystal**, perfluoroalkyl mesomorphic compd.)
IT 166439-30-1 166439-31-2 166439-32-3 166439-33-4 166439-34-5
166439-35-6 166439-36-7 166439-37-8 166439-38-9 166439-39-0
166439-40-3 166439-41-4 166439-42-5 166439-43-6 166439-44-7
166439-45-8 166439-46-9 166439-47-0 166439-48-1 166439-49-2

166439-50-5 166439-51-6 166439-52-7 166439-53-8 166439-54-9
166439-55-0 166439-56-1 166439-57-2 166439-58-3 166439-59-4
166439-60-7 166439-61-8 166439-62-9 166439-63-0 166439-64-1
166439-65-2 166439-66-3 166439-67-4 166439-68-5 166439-69-6
166439-70-9 166439-71-0 166439-72-1 166439-73-2 **166439-74-3**
166439-75-4 166439-76-5 166439-77-6 166439-78-7 166439-79-8
166439-80-1 166439-81-2 166439-82-3 166439-83-4 166439-84-5
166439-85-6 166439-86-7 166439-87-8 166439-88-9 166439-89-0
166439-90-3 166439-91-4 166439-92-5 166439-93-6 166439-94-7
166439-95-8 166439-96-9 166439-97-0
RL: MOA (Modifier or additive use); USES (Uses)
(perfluoroalkyl mesomorphic compd. for **liq. crystal** compn.)

IT 166398-09-0P 166439-21-0P 166439-22-1P 166439-23-2P 166439-24-3P
166439-25-4P 166439-26-5P 166439-27-6P 166439-28-7P 166439-29-8P
RL: MOA (Modifier or additive use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(perfluoroalkyl mesomorphic compd. for **liq. crystal** compn.)

IT 166397-72-4P 166439-98-1P 166439-99-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(perfluoroalkyl mesomorphic compd. for **liq. crystal** compn.)

IT **166439-74-3**
RL: MOA (Modifier or additive use); USES (Uses)
(perfluoroalkyl mesomorphic compd. for **liq. crystal** compn.)

RN 166439-74-3 CAPLUS

CN 2-Furancarboxylic acid, tetrahydro-5-oxo-4-pentyl-, 4'-[[4-[(2,2,3,3,4,4-hexafluoro-5-methoxypentyl)oxy]benzoyl]oxy][1,1'-biphenyl]-4-yl ester, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.